

REMARKS

Reconsideration and allowance of this application in light of the foregoing amendments and accompanying remarks is respectfully requested.

THE OBJECTION TO THE DRAWINGS IS OVERCOME

In Item 2 of the Official Action, the Examiner has objected to the drawings as not showing the internal ribs 19 and external ribs 14 extending over the height of the skirt 10.

With reference to FIG. 4a, the retainer ring 1 has a skirt 10 which extends downwardly from the radial clamp 16. This is described in the specification, at page 4, lines 19-22 (but note the previous amendment correcting the typographical error by changing the element reference number "2" to "1").

First, applicant wishes to correct an apparent misunderstanding with respect to the Examiner's comment on the drawings. The Examiner has stated, in the third last sentence in paragraph 2 of the Official Action, that in FIG. 4a, "element (14) appears to point to the skirt (10) and not to any structure resembling a rib."

FIG. 4a is, in fact, correct in showing the element 14, and this can be verified with reference to FIG. 3. The view line A-A in FIG. 3 designates a cross-sectional view of FIG. 4a. In FIG. 3, the view line A-A is shown as being taken across the diameter through two of the ribs 14 (some of the ribs 14 being specifically labeled in FIG. 3 at the one o'clock position and 8 o'clock position). The Examiner is invited to compare the view line A-A with the view line B-B in FIG. 3. It can be seen that the view line B-B lies on a different diameter which does not pass through any ribs 14. The view line B-B represents the cross-sectional view illustrated in FIG. 4b.

In FIG. 4b, the ribs 14 are not visible. However, in FIG. 4a, the rib 14 is properly designated, because, as can be seen in FIG. 3, the view line A-A passes through two diametrically opposite ribs 14, and such ribs 14 necessarily appear in the corresponding cross-sectional view shown in FIG. 4a. The ribs 14 contact the inner wall 21 of the collar 2. Furthermore, because the skirt 10 is deformed radially inwardly at the elevation of the outer ribs 14 by the force of the surrounding collar 2, the skirt inner wall 12 (FIG. 3) bulges inwardly to form inner portions or cams 15 at the elevational level of the ribs 14. The cams 15 are in contact with, and are deformed against, the thickened portion 30 of the bottle neck as shown in FIG. 4a.

FIG. 4b, taken along the view line B-B in FIG. 3, shows the outwardly bowed wall of each of two diametrically opposed connecting segments (segments 13 in FIG. 3) which are in contact with the inner wall 21 of the collar 2 (FIGS. 3 and 4b). The inner walls or surfaces 12 of the segments 13 are spaced from the thickened portion 30 of the bottle neck as can be seen in FIGS. 3 and 4b.

FIG. 5 shows a second embodiment wherein outer ribs 14 are offset with respect to inner ribs 19.

In view of the amendments previously made to the claims, it is believed that the original drawings illustrate the features as claimed.

However, the Examiner has stated that "a proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application." Accordingly, proposed drawing corrections are submitted with this amendment in the form of additional FIGS. 6 and 7 on new drawing sheet 6/7, and additional FIGS. 8 and 9 on new

drawing sheet 7/7. FIGS. 6 and 7 correspond to the embodiment illustrated in FIGS. 4a and 4b. FIGS. 8 and 9 correspond to the embodiment illustrated in FIG. 5.

If the proposed new FIGS. 6, 7, 8, and 9 are approved for entry, the specification will be amended under the heading "BRIEF DESCRIPTION OF THE DRAWINGS" to set forth the following:

"FIG. 6 is a side elevational view of the retainer ring 1 with a portion cut away to show interior detail;

FIG. 7 is a view similar to FIG. 6, but with the retainer ring 1 slightly rotated about its vertical axis;

FIG. 8 is a side elevational view of the second embodiment of the retainer ring 1 illustrated in FIG. 5; and

FIG. 9 is a view similar to FIG. 8, but FIG. 5 shows a portion of the ring 1 partially cut away to illustrate interior detail."

In view of the specification as originally filed, and in view of the drawing FIGS. 1-5 as originally filed, it is believed that the above-discussed, proposed new FIGS. 6, 7, 8, and 9 do not add new matter. Accordingly, approval of entry of the proposed new FIGS. 6, 7, 8, and 9 is respectfully requested, and withdrawal of objection to the drawings is respectfully requested.

THE REJECTION OF THE CLAIMS 1-7 AND 10 UNDER 35 U.S.C. §103
AS UNPATENTABLE OVER MASCITELLI '908 IS OVERCOME

--The Rejection

In Item 4 of the Official Action, the Examiner has rejected claims 1-7 and 10 as being unpatentable over the U.S. Patent No. 5,642,908 to Mascitelli.

The Examiner has agreed that Mascitelli '908 does not show the internal and external ribs extending axially over the height of the skirt.

--The Structure Of Mascitelli '908 And The Instant Application Structure

Mascitelli '908 does not teach or suggest the structure set forth in the presently pending claims (independent claim 1, dependent claims 2-7, and independent claim 10). Mascitelli discloses a sleeve 1 having an upper part 1a and a lower part 1b. The lower part 1b may be alleged by the Examiner to correspond to the instant invention retainer ring skirt 10. (Note in Mascitelli, at column 3, lines 17-19, the upper part 1a is described as being "a solid revolution obtained by rotation of a U-shaped surface about the axis of symmetry," to define "external tubular element 10, an internal tubular element 11, and a base transversal element 12." Thus, the lower part 1b has only a substantially annular wall extending downwardly from the outer wall or leg of the U-shaped upper part 1a.)

As set forth in the instant application specification, the instant invention skirt 10 extends downwardly from the radial clamp 16. The instant invention retainer ring has an upper sleeve 101 which would correspond to the upper part 1a of Mascitelli.

Mascitelli discloses projections or steps 20 formed above the bottom of the transverse wall 12 of the upper part 1a, not in the lower part below the transverse wall. Further, the projections 20 extend peripherally, but not very much vertically. Indeed, the projections 20 extend further in a peripheral or lateral direction than in a vertical direction (compare the lateral width of each projection 20 in FIG. 1 with the vertical height of each projection 20 in FIG. 2).

The projections 20 in Mascitelli function to provide an elevated support position for the

metallic covering 5 in an elevated position while the sleeve 1 is forced down onto the bottle neck. The sleeve 1 and elevated covering 5 are first pushed down together so as to force the sleeve 1 down onto the bottle neck, and subsequently the downward the force is continued to be applied to the covering 5 so that the covering 5 deforms the projections 20 so as to permit the covering 5 to be moved to the lowered, final assembly position on the sleeve 1 (FIG. 3). The operative surface of each projection 20 is the horizontal upwardly facing flat surface, and not the slanted, nearly vertical surface.

In the instant invention, as set forth in the claims, the ribs extend axially vertically over the height of the skirt wherein the “skirt” is defined as having an internal wall which contacts the vessel neck (as set forth in the first subparagraph of each independent claim 1 and 10, and as can be seen in the instant application FIGS. 4a and 1 (showing circumferentially spaced contact regions between the bottle neck flange and the bulged-in portions 15 at the backs of the ribs 14)). In contrast, it is clear from FIG. 2 of Mascitelli that the lower “skirt” portion of the Mascitelli sleeve 1 has no steps, projections, or ribs which contact the external wall of the vessel neck flange when the components are in the fully assembled condition. Indeed, Mascitelli teaches away from the instant invention by showing that the steps or projections 20 must be located on the upper sleeve above the lower skirt portion that contacts the wall of the vessel neck.

--Applicant Disagrees With The Examiner's Assertion That
It Would Have Been Obvious To Optimize The Shape Of
The Mascitelli Retaining Ribs To Maximize Frictional Contact
And Retention Force Between The Ring And Collar

The Examiner has stated, in the sentence bridging pages 2 and 3 of the Official Action, that it would have been obvious to one of ordinary skill in the art at the time the invention was

made to optimize the shape of the Mascitelli retaining ribs to maximize frictional contact and retention force between the ring 1 and the collar 2. This assertion overlooks a number of factors, however.

1. A person having ordinary skill in the art would not seek to maximize the frictional forces between the ring 1 and the metallic covering 5. Mascitelli '908 does not mention or suggest that the frictional forces between the ring and the metallic covering should be maximized. Mascitelli '908 does not discuss the details of the retention or fixing of the metallic covering 5 around the ring 1.

A person skilled in the art might improve the shape, the location, or the strength of the Mascitelli projections 20 in order to improve the supporting action of such projections 20 for initially holding the metallic covering at an elevated location on the ring 1, but one of ordinary skill in the art would not be motivated to seek to extend further vertically the height of the projections 20 because the described purpose of the projections 20 is to temporarily hold up the covering 5--not to contribute to the frictional gripping of the metallic covering.

Most importantly, if the heights of the Mascitelli projections 20 were extended upwardly to near the top of the element 10, then that would defeat the purpose of the projections 20, and would render the structure inoperable for its intended purpose of temporarily supporting the covering 5 in an elevated position prior to, and during, the process of moving the sleeve 1 down onto the bottle. One of ordinary skill in the art would not be motivated to modify the projections 20 of Mascitelli structure so as to prevent or defeat their intended operation!

2. Further, the Examiner's attention is directed to the instant application specification, at

page 7, lines 9-10, wherein the ribs 14, which extend over the height of the skirt, are described as allowing the pre-fitting or pre-mounting of the collar on the ring alongside the ribs 14 prior to installation of the ring on the vessel or bottle neck. In Mascitelli '908, it is not possible to pre-fit the covering 5 alongside the projections 20 because that is initially prevented by the top surfaces of the projections 20. In contrast, in the present invention, the outer ribs 14 initially deform against the wall of the collar 2 without damaging the collar 2 to allow the collar 2 to be initially mounted all the way down onto the sleeve 1 so that the two fully assembled components can be subsequently installed on the bottle neck.

3. Further, the Examiner is invited to notice that in the fully assembled structure disclosed in Mascitelli '908, the metallic covering 5 contacts the sleeve 1 only at the projections 20 and at the upper end of the ring (as can be seen in FIG. 3 in Mascitelli '908). Because the projections 20 have only a very small axial, vertical dimension, the major part of the metallic covering 5 does not contact the sleeve 1. This can result in an unstable mounting or fixation, thereby undesirably permitting the metallic covering 5 to move or twist or pivot on the sleeve 1.

4. Further, in the present invention described in the instant application, the ribbed skirt (e.g., ribbed skirt 10 in FIG. 2 of the instant application) has ribs 14 which contribute to the mounting or fixing of the skirt around the bottle neck (neck portion 30 in FIG. 4a in the instant application). In the instant invention set forth in the instant application, the skirt outer ribs 14 deform when the ring 1 is engaged around the bottle neck, but the ribs 14 also have some elastic action or spring action tending to push the skirt 10 around the bottle neck. This is not the case in Mascitelli '908.

5. Finally, the Examiner has argued that Mascitelli '908 discloses rounded projections 16 which serve to engage the bottle neck undercut 4a to fix the sleeve to the vessel neck. However, the internal walls of the projections 16, when in the fully installed position, do not engage the exterior, cylindrical surface of the vessel neck rim. Rather, the projections 16 are intended to function, and do function, to snap-fit under the rim of the bottle and engage the underside of the rim. When the Mascitelli sleeve 1 is mounted on the bottle, the inwardly facing, vertical, internal surfaces of the projections 16 do not engage the exterior surface of the bottle neck. Note in FIG. 3 of Mascitelli '908 that the inside surface of the lower projections 16 of the sleeve 1 below the bottle rim are in fact spaced outwardly of the vertical cylindrical surface of the bottle container below the rim 4. There is also space between the lower, external surface of the sleeve and the lower, internal surface of the covering 5.

In view of the above discussion, it is believed that the claims 1-7 and 10 set forth subject matter which is allowable over Mascitelli '908. Accordingly, withdrawal of the rejections of claims 1-7 and 10 as being unpatentable over Mascitelli '908 is respectfully requested.

THE REJECTION OF CLAIMS 1-7 AND 10 UNDER 35 U.S.C. §103
AS UNPATENTABLE OVER DE POUS '049 IS OVERCOME

In Item 5 of the Official Action, the Examiner has rejected claims 1-7 and 10 as being unpatentable over the U.S. Patent No. 6,409,049 to de Pous et al.

The Examiner has stated that de Pous '049 does not disclose external ribs disposed on a collar, but that it would have been obvious to one of ordinary skill in the art to take the retaining ribs 22 from the ring and move them to the collar of de Pous '049 .

Applicant respectfully believes that the Examiner's allegation is not supported.

de Pous '049 discloses ribs (e.g., ribs 22a in FIG. 5) on the inside of a cup or hoop 20. However, de Pous '049 specifically teaches that the ribs on the inside of the hoop must be in an upper part of the hoop, and must not extend down to the lower part of the hoop or skirt. The Examiner's attention is directed to de Pous '049, column 9, line 63, to column 10, line 9. There the assembly of the hoop 20 is described as mounting the hoop 20 partway on the ring 10 as shown in FIG. 4a. The hoop 20 is pushed down on the ring 10 until the bottom ends 22a of the projections 22 abut the top end of the annular crown 14 of the ring 10. This forms a "subassembly" constituted by the dispenser assembly 3, the ring 10, and the hoop 20. This subassembly, as shown in FIG. 4a, is a pre-engaged, "non-final" configuration, and it is in this "non-final" configuration that the subassembly is delivered to the bottler which installs the subassembly on the bottle and only then pushes the hoop 20 all the way down on the ring 1.

In contrast, with the present invention, the collar 2 can be initially pushed all the way onto the ring 1, and this can be done before the assembly is mounted on the bottle.

Thus, one of ordinary skill in the art would not be taught by de Pous '049 to employ ribs in the lower portion or skirt (whether on the inside or outside of such a skirt) of a collar or other member. Indeed, de Pous '049 teaches away from such a concept and teaches away from the structure set forth in the claims of the instant application wherein the ribs are extending axially, vertically over the height of the lower skirt.

Further, de Pous '049 teaches that the preferred embodiment of the hoop 20 is preferably made of metal so that the ribs can be relatively easily forced into the plastic fixing ring 10 during final assembly on the bottle. In contrast, in the invention described in the instant application, the

ribs on the exterior of the retainer ring skirt are intended to come into fitting contact against the smooth, cylindrical, internal wall of the surrounding collar. Again, de Pous '049 does not teach or suggest this concept or structure.

In the instant invention, as described in the instant application, a unique structure is employed which includes the retainer ring skirt having formed thereon ribs which participate in fixing the skirt around the neck of the container. This structure, in combination with the other features set forth in the claims, is not taught or suggested by the prior art de Pous '049 patent cited by the Examiner.

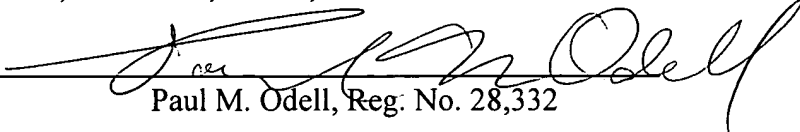
In view of the above discussion, it is believed that claims 1-7 and 10 set forth subject matter which is allowable over de Pous '049. Accordingly, withdrawal of the rejections of claims 1-7 and 10 as being unpatentable over de Pous '049 is respectfully requested.

It is believed that all of the claims in the application, as amended, are now in condition for allowance, and such action is earnestly solicited.

Further, it is believed that this entire application is now in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

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